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AUTHOR Haensly, Patricia A.
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ABSTRACT

Using a naturalistic inquiry approach and case study methodology, an ongoing case study examined within-family developmental factors among families with an identified gifted preschooler and at least one sibling with either a different type of giftedness or not identified as gifted. Data were collected through interviews, records, and familial observations. Since 1985, different cohorts of families have participated in a 4-week summer preschool program for 3- and 4-year-olds who have advanced-for-age intellectual abilities. By 1988, it became apparent that parents who enthusiastically nominated first-born children for the program often became hesitant and confused about the ability of their second-born children, perceiving them as less bright or at least quite different in ability and style. However, when second-born children in the program were administered the same assessments as the first born, data suggested that, although parental estimates of ability were often hesitant, strong evidence of precocious ability in the home setting was frequently confirmed. (Contains 54 references.) (MDM)

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Development of Giftedness among Siblings:

A Case Study of Differences and Familial Microsystems

Patricia A. Haensly, Ph.D.
Institute for the Gifted and Talented
Texas A&M University
College Station, TX USA 77843-4225

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Abstract

Using a naturalistic inquiry approach and case study methodology, within-family developmental factors among families with an identified gifted preschooler and at least one sibling with either a different type of giftedness or not identified as gifted have been examined through interviews, records, and familial observations. The children and their families have been participants of a 4-week summer preschool program for 3- and 4-year-olds who have advanced for age intellectual abilities as identified through parental observations (reported on the Seattle Project Parent Questionnaire) and an interview at which the above age level instruments, the Ravens Colored Progressive Matrices and the Peabody Individual Achievement Test, are administered. This presentation will discuss tentative findings affecting parental perception of ability and subsequent response to the siblings, as well as project future data gathering on this population.

Development of Giftedness among Siblings: A Case Study of Differences and Familial Microsystems

Salient environmental factors that bring about differences among individuals in their intellectual capabilities, their personalities, and overall pattern and direction of development were once thought to act mainly *between* families (see DeFries, Vandenberg & McClearn, 1976; Loehlin & Nichols, 1976; Plomin & DeFries, 1980; Wilson, 1978; and others). However, more recent studies by behavioral geneticists and developmental psychologists have shown that many of those same factors act equally forcefully to bring about individual differences between siblings *within* the family setting (Dunn & Plomin, 1990; Lamb & Sutton-Smith, 1982; Plomin & Daniels, 1987; Scarr & Grajek, 1982). Researchers have observed that children as early as two years of age monitor and react to the parents' interaction with their siblings (Dunn & Shatz, 1989). Variation in the dynamics of the group and the consequent changes in interactions within families as additional siblings are added to the group, either by birth or by blending partial families, create multiple, interacting microsystems within which the individual must accomplish his or her own sequence of development (Bronfenbrenner, 1986).

Such influences are of particular interest to parents and educators intent on fostering gifted potential and concerned about school-based identification of giftedness and subsequent placement in gifted programs. Specific attention to the differences within the family environment that might alter individual development when one child but not a sibling is identified for gifted programs or other specialized opportunities has been insufficiently researched. A recently reported study of sets of identical and fraternal twins, in which one of each set had been placed in a gifted program and the other had not (Renzulli & McGreevy, 1986), highlights important aspects of both the identification process and gifted programming for siblings treated differentially. Sibling inequity in receiving special familial support for ability development may offer less obvious concern in the case of prodigies who have evidenced precocious, extraordinary musical or psychomotor talent,

and where societal and familial expectations that such outstanding talent will be supported to whatever extent needed frequently prevail (Feldman, 1986). However, identification of *potential* for intellectual giftedness and the abilities most closely associated with academic or school-oriented accomplishments, as tenuous a process as it is and often questionable in its validity, carries with it a more pronounced concern and critical immediacy. In these cases, when one sibling receives special educational options and another does not, the effects of inequitable treatment may be much less justifiable, and subsequent treatment even misplaced due in great part to our limited understanding of diverse manifestations of intelligence.

Satisfactory development for each member of the family, with recognition that development might in most instances take different directions for each member, seems a reasonable objective to seek. That is, it seems reasonable to believe that families could establish a general intellectual and social climate constructed to promote optimal, even if different, developmental outcomes for each sibling. Bloom's retrospective study of the development of talent in young people supports the idea that such a general proactive climate could and does exist for some families (Bloom, 1985). In fact, the Renzulli and McGreevy twin study (1986) found that a number of parents believed their unplaced twin possessed talents that were less obviously and securely academic, yet equally valuable in more creative ways. In these cases the parents also believed that the differently abled twin would also have benefited greatly from gifted programming.

The purpose of this paper is threefold: (a) To review literature regarding the special developmental concerns for families with a first-born child recognized as potentially gifted at an early age and siblings with differing or unrecognized abilities; (b) To describe briefly an ongoing case study of 24 such families designed to explore factors that may result in short term or long range effects on the cognitive, perceptual, and social development of each of the siblings; and (c) To suggest a naturalistic inquiry approach as an optimal means for gathering further data on relevant intellectual and personal changes that evolve with subsequent births of differently-abled siblings. It is hypothesized that detrimental effects on the cognitive, perceptual, and social development of each of these siblings may occur due to differential treatment of siblings when

differences in treatment are based on a singular perspective of ability, accompanied by expectations and values shaped according to the perceived accomplishments of one sibling compared to another. Further, that detrimental effects are preventable through a better understanding of the diverse nature of gifted potential, the individuality and ecology of development, and the multiple responses possible to facilitate development of giftedness. This hypothesis has critical implications, both for parental and counselor guidance and for educational programming.

Theoretical Foundation

Empirically Documented Problem Areas

Effects on sibling performance. As an example of the effect on intellectual development of sibling addition to the family, McCall (1984) demonstrated that the mental performance of children as measured by IQ dropped 10 points during the next 2 years after the birth of a younger sibling relative to the situation with singleton children. While McCall found these differences were no longer significant by 17 years of age, the results demonstrate that the birth of a sibling does have an effect on immediate mental performance, and may indeed alter the long range course of development for at least some children. Research by Dunn and Kendrick (1980) suggests that the birth of a younger sibling brings about a lessened maternal interest in and sensitivity to the initiatives of the older child and more negative confrontations over behavioral control. In such a scenario the firstborn would "fall from favor", so to speak, and thus would seem to be subjected to stricter guidelines than the younger sibling. Consequently, the firstborn would need to become more self-directed in order to develop potential. This fallout could be advantageous in developing independence and competence, depending on the ego strength and strategy development of the older sibling, and on the opportunities available for promoting that child's unique talents.

From a contrasting perspective, Dunn and Stocker (1989) cite the Colorado Adoption Project data to point out that when differences between siblings in personality can not be explained by differences in the siblings' genotypes, and shared environmental influences are not operating to make them similar (e.g., average sibling correlations of .04), we must conclude that the differences are due to *nonshared* environmental influences. To address some of these factors, Dunn and

colleagues (Dunn & Plomin, 1986; Dunn, Plomin, & Daniels, 1985; Dunn, Plomin, & Nettles, 1985) have found through videotaped observations that mothers behaved with much consistency to their two children when they were each the same age, but with little stability to the same child 12 months later at 24 months of age. Nonshared environmental influences might include differences in parental behavior toward children, personality and temperament of both mother and individual children, biological or adoptive status, differential sibling behavior, children's perceptions of the sibling relationship, and experiences outside the home.

With specific regard to the mothers' personalities, Dunn and Stocker (1989) found that the more social and extroverted mothers differentiated less between children, and impulsive and emotional mothers differentiated more. That is, the latter were less stable in their behaviors toward individual children. Mothers talked more to the more sociable of the siblings and controlled more, yet the more active child was talked to less. Mothers with adoptive siblings were less consistent in their affectionate behavior towards the children.

How children perceive their parents' behavior toward them and their siblings may differ from the objective case. Apparently children report differences in treatment as early as 5 to 6 years of age (Koch, 1960), 10-11 years (Furman & Buhrmester, 1985) and at adolescence (Daniels, Dunn, Furstenberg & Plomin, 1985), even though in one study half the siblings reported they were treated similarly (Daniels & Plomin, 1985).

Social relations and comparisons. Cornell and Grossberg (1986) showed that when gifted children were enrolled in gifted programs, and the effect on their self-esteem and personality adjustment assessed (along with that of a sibling subsequently enrolled in a gifted program), and then compared with instances where a sibling was not also enrolled, adjustment problems were observed. Such problems were found primarily in those subgroups of children assigned to a regular classroom rather than a gifted program classroom, and specifically in children whose parents perceived them differentially from their gifted program siblings (i.e., "less gifted").

Based on a longitudinal study of the relationship of mother to child and father to child, Volling and Belsky (1992) found that early relationship experiences between parents and their first-

born children affected sibling relationships in a stable and consistent way. In fact the interaction between early experiences and differentiated parental treatment has been found to predict sibling relationship outcomes. While their study focused on sibling conflict and aggression and on prosocial sibling interactions as outcomes of interest, the results may have important implications for parental promotion of talent development opportunities as well. Thus, early experiences leading to differential parental treatment of siblings may form a pattern of support for one child and absence of support for another. This would be evidenced in the opportunities arranged and intensity of pursuit of the most appropriate ways to help one sibling more than another develop their talent.

Relationships between siblings. In Ballering and Koch's (1984) empirical study of volunteer families in which there was at least a 15 point WISC-R difference between siblings ages 6 to 16, nongifted children perceived their relationships with other children in the family in a more positive light than did gifted children. Furthermore, as the gifted child's IQ score increased, creating a greater gap in ability, perceptions of a positive relationship with the gifted sibling decreased, and gifted children perceived more negative affect in their relationships with nongifted siblings. In order to avoid the possible unreliability of self-report data, Ballering and Koch used the Bene-Anthony Family Relations Test (FRT) (Bene & Anthony, 1978) to obtain their data, a sociometric device for observing children in a play situation. Pfouts (1980), in a study of families with two male children, discovered that siblings' interactions were more positive when the older male sibling was higher in intelligence than when less intelligent or equal in intelligence. Sunderlin's (1981) three case studies also showed greater adjustment difficulties among siblings associated with discrepancies in intelligence.

Birth order may affect the sibling relationship itself. Numerous studies reported that older siblings dominate the relationship, with age group then accounting for additional inequities in dominance. How siblings perceive their sibling's behavior may be more important than the intent of the behavior. Whether any of these differences act to directly alter the developmental path of the individual is far from clear. Bossard and Boll (1956) suggested that members of a family take on

differentiated and complementary roles to ensure smooth functioning of the family. Schachter (1982) proposed that siblings may purposefully develop identities different from their siblings to avoid competing in the same realm for parent attention and affection. In cultures other than Western where individualization is so highly emphasized, sibling differences may be less evident and viewed as less enigmatic, in fact, more valued when they do exist.

From the empirical research reviewed by Kierouz (1990), she concluded that "gifted children perceive high amounts of negative affect in their relationships with their siblings" (p.61). Emotional adjustment, self-esteem, competition, and cooperation all appeared to become problematic for the nongifted child in these dyads. Yet Renzulli and McGreevy (1986), in their study of twins, found that most twins from this solicited sample of 62 twin sets reported they preferred their current arrangement of placement of one twin in a gifted program and the other in the regular program, even though 66% of them reported they would have liked to have been included in the decision making for separate placement. In contrast to such positive reception of different placements for twins, several parents reported that separate placements resulted in competitive disruptions at home when their twins were separated in school.

Gifted identification and labelling. Cornell (1983) reports that parents often feel ambivalent about the gifted label for their child. While Louis and Lewis (1992) observed that parents of gifted preschoolers have different expectations for their children than parents of nongifted children, it is unclear whether this same effect between families is replicated within families. Fisher (1978) found that in one-third of her sample, parents disagreed with the school's evaluation of giftedness. When they disagreed, the gifted label was seen as burdensome. Sometimes only one parent perceived the child as gifted, and in 13 out of 15 cases the believer was the mother. When parents agreed with the school, the label increased parental expectations, parental tolerance, and justified increased demands on the school (Fisher, 1978). It appears that the gifted label disrupted the status quo in the family system, according to Fisher (1981), with a negative effect on the nonlabeled children.

Some parents in the twin study (Renzulli & McGreevy, 1986) described the nonplaced twin as having talents and learning styles antithetical to traditional classroom expectation. These parents felt their nonplaced twin would have benefited from placement in the gifted program and, in fact, later sought gifted placement for him or her. Identification of giftedness among this particular sample of twins from northeastern United States appeared most often to be based on teacher referrals. As well, the referrals were associated with selection of the more conforming, approval -oriented twin over the more creative, self-directed twin, suggesting flawed selection procedures. Other than the parental-reported increase in competition between twin siblings, the researchers concluded that no serious long-term problems resulted. This conclusion that outcomes were not considered problematic seems a strange commentary on the effectiveness or necessity of gifted programs in which children who theoretically should have been identified for them were not given that opportunity.

Gender effects. Is there a gender factor involved in identification of gifted ability within the family? In an interview study of parents of 3- and 4-year old gifted children (mean I.Q. 143, 65 girls and 85 boys), Johnson and Lewman (1990) found that parental perceptions of ability of their children followed closely gender stereotypes seen in the literature. Although their study was not designed to extract within-family sibling differences, the marked gender differences in perceived abilities and characteristics at such a young age needs further examination. Parents reported boys having ability characteristics in the areas of problem solving, abstraction, and curiosity, while girls were reported strong in the area of vocabulary. Parents reported girls as more interested in books about animals and school-type readiness (i.e., ones that teach counting, alphabet, prereading, etc.) while boys were reported as preferring picture books, adventure stories and factual books.

The question arises whether such gender differences as seen in the Johnson and Lewman (1990) study will operate *within* families as well and, if so, how this factor may affect provision of opportunities to develop individual talents. Biographies of geniuses and their families throughout history suggest that gender has been a factor affecting opportunities provided and expected. One example occurs in the generations of the musically gifted Menuhin family, where

the focus of opportunity fell to the male child in many succeeding generations despite sisters who demonstrated seemingly comparable potential, but for whom opportunities to develop were of secondary priority.

Are Concerns over Sibling Ability Differences Overstated?

The possibility must not be overlooked that empirical data will show significantly few areas about which to be concerned regarding the development and social adaptation of siblings with lesser or different abilities, or those whose abilities have not been recognized through inclusion in special opportunities. In a study of the childhood traits and environmental conditions of highly eminent male adults by Walberg and multiple data gatherers (Walberg, et. al , 1981), it was reported that 77% of the 200 were liked by their siblings. In this study, 36% were first born children, only 13% were only children, and slightly over half (55%, 60% respectively) were encouraged in their development by their mother or father. Mathews, West and Hosie (1986) administered the Family Assessment Device (Epstein, Baldwin, & Bishop, 1983) to 80 families with a child enrolled in a university sponsored summer enrichment course (minimum IQ of 130) and compared results with responses from 218 nonclinical families. Results showed that families of gifted children effectively assigned and carried out responsibilities and were more adept at implementing the problem solving process than those from the comparative group, as well as practiced clearer and more direct communication. We should not overlook the possibility that such familial strategies are, in fact, examples of the type of support critical to development of potential ability, with gifted potential being more likely to be manifested among children who have had the advantage of this type of guidance. Although no indication is given of the presence of siblings not included in the summer program we might assume from Mathews' comments that at least some families included siblings who were not included in the summer program. Mathews et al. (1986) concluded that the literature may be erroneous in assuming that most families of gifted children are in need of counseling treatment for within-family adjustment problems.

Theories about the types of parenting needed for gifted children, and about dysfunctional sibling relationships developed in families when one child is formally recognized or identified as

gifted and another sibling has not been so identified, have been frequent. Kierouz (1990), suggests that many educators, counselors, psychologists and others have developed their theories based on their field and clinical experience, rather than on empirical findings. She maintains that this approach has resulted in "piecemeal" accumulations of advice about what parents should or should not do for their gifted children. Her review of the research in this area, complemented by current theoretical positions, sets a new framework for organizing the gathering of empirical data. This framework includes not only sibling relationships, but also family roles and adaptations, parental self-concept, neighborhood and community issues, educational issues, and the child's cognitive, social and emotional development. Applying Bronfenbrenner's (1986) ecological perspective, we are reminded that interrelationships exist between each of these six areas, each influencing and being influenced by the others.

Hackney (1981) emphasized that such systemic complexity must be recognized and appropriate action taken. Implied is that appropriate response would then be to cease generalizing on the basis of limited and specific instances. He moderates this pessimistic stance by stating that we must attempt to unravel the myriad of influencing factors, and only then prescribe specific guidelines to parents, teachers and other regarding the procedures needed to foster optimal development of the gifts of individual children. Again, we are reminded that ecological perspective strongly supports the conclusion that generalization principles are risky and possibly inappropriate in dealing with individual children, and that we may have to consider each child a case unto its own. A comprehensive literature review of the influence of family environment on the development of talent reported by Olszewski, Kulieke and Buescher (1987) underlines our current status in regard to these systemic effects, stating, "Studying the influence of families and family variables on gifted individuals leaves one overwhelmed with the complexity of the relationships among them." (p.25)

The Ongoing Case Study

In 1985, a 4-week summer program for 3- and 4-year old children advanced for age in intellectual ability, was established by the Institute for the Gifted and Talented at Texas A&M

University. Extensive data on the 16-22 children identified each year for that program has been accumulated from the screening or identification procedures (including intelligence tests and extensive parent questionnaire responses) and from observations made during the program by teachers and researchers. The culminating reports to parents on program accomplishments by their children along with some follow-up contacts have added to this data base. The identification procedures for this program (described in greater detail, Haensly, 1992; Haensly, Ash, & Wehrly, 1992) include a nonverbal intelligence test, the Raven's Colored Progressive Matrices (RCPM) and a school readiness test, the Peabody Individual Achievement Test (PIAT). Since both are out of age-level instruments, performance levels are estimated using extrapolated age equivalents. A parent questionnaire (SPPQ), modified from the Seattle Project Parent Questionnaire (Grossman & Haensly, 1987; Child Development Research Group, University of Washington, 1985), is administered and analyzed also using developmental age equivalent estimates. While the primary guideline for admission is "ability advanced for age by at least two years on one of the three admission instruments", outstanding ability in a particular domain or type of expression such as in the verbal response to the Information subtest of the PIAT is recognized. The attitude that emerging abilities may be expressed in many different ways and under many different contexts (Fisher 1992), the type of program we have established and its relevance to the child's emerging abilities, and child's current social and cognitive maturity all guide our admission decisions.

By 1988, it became apparent that parents who enthusiastically nominated first born children for the program often became hesitant and confused about the ability of their second born children, perceiving them as less bright or at least quite different in ability and style. Remarks such as "We don't really think this [second] child is as gifted as ------- was; he/she is so different!" were not uncommon, followed by reluctance to provide access to this program which they believed had so enriched their first born's life. The policy adopted at that time became to provide incentives for enrollment of the second child, as it was our intent to initiate a study of siblings among gifted children. Because of an individualized and developmentally appropriate curriculum, challenging

and responsive to individual differences where needed, this policy was believed justifiable even if the child did not appear as precociously able as his or her sibling.

An example from one of the families in this case study validates this assumption. In one of the "two female siblings" families, the first-born girl (A) was readily perceived by her parents as gifted because of her precocious verbal ability by age 3. This perceived giftedness was borne out in a WISC-R assessment at 6 years of age in which she exhibited a nearly 40-point difference favoring the verbal area, a verbal ability assessment complemented with a WISC-R performance score at the high average level. As reported by the mother, the sister who is two years younger (B), might very likely not have been identified as gifted were it not for the father's keen observations, personal relevance, and advocacy---"he was always pulling for her." In contrast to A, the younger sibling showed only modest verbal expressiveness, but instead showed a "keen ability to assemble complex jig saw puzzles by age 3", seeming to find puzzles fascinating. The parents considered the summer program for B mainly because her sister, who had been enrolled for two years in the summer program for gifted 3- and 4-year olds had had such a positive experience that they felt this sibling too must be presented the opportunity. In the program admission process, B exhibited an extrapolated Raven's Colored Progressive Matrices performance level of 4 1/2 years at age 3 1/2, and approximately 1 1/2 years advanced for age knowledge on the PIAT; however, her prereading skills and responses on the Information subtest were approximately 2 years advanced for age. According to our policy we had encouraged her enrollment and the child thrived in the developmentally appropriate climate of play, exploration and discovery. Although this mother is a professional school psychologist and highly competent in psychological assessment, or perhaps *because* of this as she hypothesized, her view of giftedness was somewhat narrow. She commented that her awareness of the importance of verbal ability in intelligence assessment and school functioning had influenced her thinking. The father, a mathematician, saw other abilities as surfacing very strongly, and for him, as related, it was "like seeing yourself in her." While exhibiting a great deal of unconditional love and appreciation of B, the mother had not alerted to B's different abilities, abilities that have now been as strongly

demonstrated in her first grade work as they were in the summer program. This child, currently in first grade, has been identified for the school's gifted program and is progressing in her particular abilities at a fast pace. Now a reader, her verbal expressiveness is moderated by a somewhat more reticent interpersonal style, and is somewhat eclipsed by her spatial and problem solving abilities.

Over the period of this program's existence from which the population of young gifted children and their families have been identified for this study, 24 families have enrolled their first- and second-born siblings in the program. Of these families, four have added a third-born to the family, although these children are too young for the program, or the family has moved to another city. Within these families, according to birth order, eight consist of a male-male pair, four of a female-female pair, seven of a male-female pair, and five of a female-male pair. In each case first-borns were selected through the three-level identification procedure described above, as well as the subsequent determination that the child was socially and emotionally ready for this program (i.e., taking the next step from home guidance and minimal size of interacting groups to separation from parent and frequent small group activities) and would, to the best of the combined parent and director's judgment, benefit from the intense 4-week program. The primary inclusion criterion was that the child be at least two years advanced for age on at least one of the assessments; when necessary, preference was given to those who were more advanced in more of the assessment areas, especially those whose abilities were demonstrably above the norm. Limited places were available due to constraints of physical facilities and the graduate teacher education practicum which was used to staff the program. The range of abilities in any one summer included very bright children (estimated at one to two standard deviations from the norm) to one or two children at an estimated three to four standard deviations from the age norm in ability. The latter was most often evidenced in a strong RCPM or overall PIAT score, with the PIAT score usually evidenced in extensive verbal precocity (Haensly, 1988; Haensly & Grossman, 1988).

The second-born was administered the same assessment instruments, but their inclusion in the program was ensured prior to the assessment if it was believed that the child was ready socially and emotionally. Data on these children suggest that, although parental estimates of ability were

often hesitant, strong evidence of precocious ability in the home setting estimated on the basis of developmental age norms of behaviors and characteristics described in the SPPQ (Grossman & Haensly, 1987; Haensly & Grossman, 1988), was frequently confirmed by the other instruments at assessment time. While parents did not necessarily understand the ability of their child relative to general categories of giftedness, they reported their child was exhibiting behaviors unusually advanced for age. It needs to be mentioned here that the principal investigator, who also administered the assessment instruments, interviewing and observing the child during the assessment period, purposefully did not inform herself of the information included in the SPPQ until after the other assessments had been conducted. This strategy facilitated an openness in the testing procedure to behaviors or characteristics not observed by parents nor limited by those they reported. Data on these identification findings are included in a paper currently under preparation.

Records include assessment data on the siblings--both quantitative and qualitative, that is, initial scores as well as assessment observations of behavior, attitude and interactions at the time of screening; the extensive parental responses to the initial questionnaire about their children; observations and informal teacher records of the child's activities and productions during the program; and an instructional report completed by the child's assigned program teacher along with other staff. This latter report was used to guide an exit interview with the parent and then served as a written document of observed accomplishments, behaviors, attitudes and recommendations accumulated during the program. Preliminary substantive analyses of emerging cognitive styles in preschoolers, conducted with this same population and reported at the Esther Katz Rosen Symposium (Haensly, 1992) will be integrated with this case study where relevant.

The primary methodological focus in this ongoing case study of sibling and *within* family developmental factors among families with an identified gifted preschooler is derived from the naturalistic inquiry approach and philosophical perspective regarding social science data (Lincoln & Guba, 1985; Merriam, 1988). Currently, naturalistic observations of the families, interviews with family members (structured and unstructured), and the use of current records to verify follow-up development of the child describe the primary data gathering for this case study. Information from

these interviews and observations will be organized according to the categories suggested by Kierouz (1990), although emerging themes and hypotheses will also bear scrutiny as is expected in naturalistic inquiry. The categories include (a) sibling relationships, (b) family roles and adaptations, (c) parental self-concept, (d) neighborhood and community issues, (e) educational provisions and issues, (f) the individual children's cognitive, social and emotional development.

It is the intent of this inquiry to explore as fully as possible with this population of children the ***within family*** factors that promote cognitive, social, and stylistic development of young children. Further, this study will be focusing on the dynamics of ***change*** as siblings were added to the individual family group, as nearly as can be assessed retrospectively and affirmed currently. The inquiry will be guided at least in part by the questions and findings reported in this review of the literature and grounded in ecological theory and the concept of the family as a critical microsystem for the development of the child's potential. A preliminary report of the first three families included in this case study is in preparation.

Reference Note

The information presented in this paper was reported at the 1993 Tenth World Congress on Gifted and Talented Education of the World Council for Gifted & Talented Children Inc. in Toronto, Ontario, CANADA. An earlier version was previously reported as emerging research at the Esther Katz Rosen Symposium, Lawrence, Kansas, in February, 1993. Appreciation is expressed for the considerable contribution to the study made by teachers in the preschool program who were engaged in graduate practicum experiences over the years of 1987 to the present as part of their ongoing professional development in gifted education. Correspondence regarding the study may be addressed to the author, Associate Director of Programs, Institute for the Gifted and Talented, Texas A&M University, College Station, TX, 77843-4225.

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